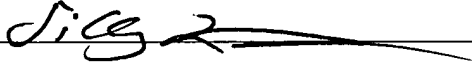




PATENT
Docket No. 416272002220

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Lilly Yan

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Peggy G. Lemaux et al.

Serial No.: 09/552,252

Filing Date: April 18, 2000

For: COMPOSITIONS AND METHODS FOR
PLANT TRANSFORMATION AND
REGENERATION

Examiner: G. L. Helmer

Group Art Unit: 1638

**INFORMATION DISCLOSURE
STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98**

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Copies of the documents were previously submitted in an Information Disclosure Statement and/or Office Action, directed to the related application Serial Number 08/845,939, filed April 29, 1997, and, accordingly, copies are not included herewith. This protocol conforms with 37 C.F.R. §1.98(d) and M.P.E.P. 609(A)(2). The Examiner is requested to make these documents of record in the application.

12/10/2003 EAREGAY1 00000002 031952 09552252

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sf-1603496

This Information Disclosure Statement is submitted:

- ☐ Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required.
- ☒ After receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance.
 - ☐ A fee is required. A check in the amount of * is enclosed.
 - ☒ A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.
 - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below; accordingly; no fee is believed to be due.
- ☐ After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee.
 - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a check in the amount of * is enclosed.
 - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.


The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal letter is separated from this document or the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to

Deposit Account No. 03-1952 referencing 416272002220. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: December 3, 2003

Respectfully submitted,

By: 
Otis Littlefield
Registration No. 48,751

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Form PTO-1449

Docket Number 416272002220

Application Number 09/552,252

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Applicant

Peggy G. Lemaux et al.

Filing Date April 18, 2000

Group Art Unit 1638

Mailing Date December 3, 2003



U.S. PATENT DOCUMENTS

| Examiner Initials | Ref. No. | Date | Document No. | Name | Class | Subclass | Filing Date If Appropriate |
|-------------------|----------|---------|--------------|------------------|-------|----------|----------------------------|
| | 1. | 10/1987 | 4,699,644 | Brandt et al. | | | |
| | 2. | 11/1992 | 5,164,310 | Smith et al. | | | |
| | 3. | 1/1994 | 5,281,529 | Zhong et al. | | | |
| | 4. | 6/1994 | 5,320,961 | Zhong et al. | | | |
| | 5. | 9/1994 | 5,350,688 | Matsuno et al. | | | |
| | 6. | 4/1995 | 5,403,736 | Tanimoto | | | |
| | 7. | 10/1996 | 5,565,355 | Smith | | | |
| | 8. | 12/1996 | 5,589,617 | Nehra et al. | | | |
| | 9. | 3/1997 | 5,610,042 | Chang et al. | | | |
| | 10. | 6/1997 | 5,641,664 | D'Halluin et al. | | | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials | Ref. No. | Date | Document No. | Country | Class | Subclass | Translation YES NO |
|-------------------|----------|---------|--------------|---------|-------|----------|--------------------|
| | 11. | 9/1993 | 0558676 | EPO | | | |
| | 12. | 1/1989 | 04027466 | Japan | | | |
| | 13. | 3/1994 | 07255304 | Japan | | | |
| | 14. | 8/1995 | 07212183 | Japan | | | |
| | 15. | 11/1992 | WO92/20809 | (WO) | | | |
| | 16. | 6/1994 | WO94/13822 | (WO) | | | |
| | 17. | 2/1996 | WO96/04392 | (WO) | | | |

OTHER DOCUMENTS

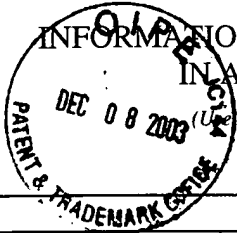
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| | | | |
|--|-----|---|-------------------------------|
| Form PTO-1449 | | Docket Number 416272002220 | Application Number 09/552,252 |
|  <p>INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)</p> | | Applicant Peggy G. Lemaux et al. | |
| | | Filing Date April 18, 2000 | Group Art Unit 1638 |
| | | Mailing Date December 3, 2003 | |
| | 18. | Purnhauser, Central Research Communication, 1991, vol. 19: 419-424. | |
| | 19. | Gless et al. (1998), "Transgenic Oat Plants Obtained at High Efficiency by Microprojectile Bombardment of Leaf Base Segments," J. Plant Physiol., 152:151-157. | |
| | 20. | Napoli et al. (1990), "Introduction of a Chimeric Chalcone Synthase Gene into Petunia Results in Reversible Co-Suppression of Homologous Genes in trans," The Plant Cell, 2:279-289. | |
| | 21. | Potrykus (1991), "Gene Transfer to Plants: Assessment of Published Approaches and Results," Annu. Rev. Plant Physiol. Plant Mol. Biol., 42:205-225. | |
| | 22. | Somers et al. (1992), "Fertile, Transgenic Oat Plants," Biotechnology, 10:1589-1594. | |
| | 23. | Torbert et al. (1995), "Use of paromomycin as a selective agent for oat transformation," Plant Cell Reports, 14:635-640. | |
| | 24. | Wan et al. (1995), "Type I callus as a bombardment target for generating fertile transgenic maize (Zea mays L.)," Planta, 196:7-14. | |
| | 25. | Zaghmout & Torello (1992), "Plant Regeneration from Callus and Protoplasts of Perennial Ryegrass (Lolium perenne L.)," J. Plant Physiol., 140:101-105. | |
| | 26. | Zhong et al. (1996), "The Competence of Maize Shoot Meristems for Integrative Transformation and Inherited Expression of Transgenes," Plant Physiol., 110:1097-1107. | |
| | 27. | Holm et al., (1994) "Regeneration of fertile barley plants from mechanically isolated protoplasts of the fertilized egg cell," Plant Cell, 6:531-543, Abstract Only. | |
| | 28. | Jain et al., (1995), "An improved procedure for plant regeneration from indica and japonica rice protoplasts," Plant Cell Reports, 14:515-519, Abstract Only. | |
| | 29. | Baillie et al., 1992, "Field evaluation of barley (Hordeum vulgare L.) genotypes derived from tissue culture," Can. J. Plant Sci., 72:725-733. | |
| | 30. | Bhaskaran et al., 1990, "Regeneration in Cereal Tissue Culture: A Review," Crop Sci., 30:1328-1337. | |
| | 31. | Bregitzer, 1992, "Plant Regeneration and Callus Type in Barley: Effects of Genotype and Culture Medium," Crop Sci., 32:1108-1112. | |
| | 32. | Bregitzer et al, 1995, "Plant regeneration from barley callus: Effects of 2, 4-dichlorophenoxyacetic acid and phynylacetic acid," Plant Cell Tiss. Org. Cult., 43:229-235. | |
| | 33. | Christensen et al., 1996, "Ubiquitin promoter-based vectors for high-level expression of selectable and/or screenable marker genes in monocotyledonous plants," Transgenic Res., 5:1-6. | |
| | 34. | Dahleen, 1995, "Improved plant regeneration from barley callus cultures by increased copper levels," Plant Cell Tiss. Org. Cult., 43:267-269. | |
| | 35. | De Block et al., 1987, "Engineering herbicide resistance in plants by expression of a detoxifying enzyme," EMBO J., 6:2513-2518. | |
| | 36. | Fletcher, 1969, "Retardation of Leaf Senescence by Benzy-ladenine in Intact Bean Plants," Planta, 89:1-8. | |
| EXAMINER: | | DATE CONSIDERED: | |
| EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant. | | | |

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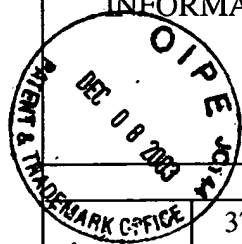
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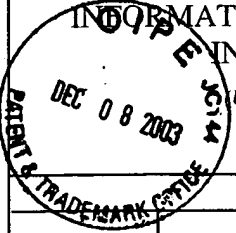


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|-----|--|
| 37. | Fromm et al., 1986, "Stable transformation of maize after gene transfer by electroporation," Nature, 319:791-793. |
| 38. | Fromm et al., 1989, "An Octopine Synthase Enhancer Element Directs Tissue-Specific Expression and Binds ASF-1, a Factor from Tobacco Nuclear Extracts," Plant Cell, 1:977-984. |
| 39. | Funatsuki et al., 1995, "Fertile transgenic barley generated by direct DNA transfer to protoplasts," Theor. Appl. Genet., 91:707-712. |
| 40. | Ghaemi et al., 1994, "The effects of silver nitrate, colchicines, cupric sulfate and genotype on the production of embryoids from anthers of tetraploid wheat (Triticum turgidum)," Plant Cell Tiss. Org. Cult., 36:355-359. |
| 41. | Goldstein et al., 1986, "Tissue culture and plant regeneration from immature embryo explants of Barley, Hordeum vulgare," Theor. Appl. Genet., 71:631-636. |
| 42. | Gordon-Kamm et al., 1990, "Transformation of Maize Cells and Regeneration of Fertile Transgenic Plants," Plant Cell, 2:603-618. |
| 43. | Griffin et al., 1995, "High-frequency plant regeneration from seed-derived callus cultures of Kentucky bluegrass (Poa pratensis L.)," Plant Cell Rep., 14:721-724. |
| 44. | Hagio et al., 1995, "Production of fertile transgenic barley (Hordeum vulgare L.) plant using the hygromycin-resistance marker," Plant Cell Rep., 14:329-334. |
| 45. | Hanzel et al., 1985, "Genotype and Media Effects on Callus Formation and Regeneration in Barley," Crop Sci., 25:27-31. |
| 46. | Holtorf et al., 1995, "Two routes of chlorophyllide synthesis that are differentially regulated by light in barley (Hordeum vulgare L.)," Proc. Natl. Acad. Sci. USA, 92:3254-3258. |
| 47. | Jahne et al., 1991, "Regeneration of fertile plants from protoplasts derived from embryogenic cell suspensions of barley (Hordeum vulgare L.)," Plant Cell Rep., 10:1-6. |
| 48. | Jahne et al., 1994, "Regeneration of transgenic, microspore-derived, fertile barley," Theor. Appl. Genet., 89:525-533. |
| 49. | Kasha et al., 1991, "Haploids in Cereal Improvement: Anther and Microspore Culture," In: Gene Manipulation in Plant Improvement II, Gustafson (ed.), Plenum Press: New York, pp. 213-235. |
| 50. | Kott et al., 1984, "Initiation and morphological development of somatic embryoids from barley cell cultures," Can. J. Bot., 62:1245-1249. |
| 51. | Lemaux et al., 1996, Bombardment-Mediated Transformation Methods for Barley, Bio-Rad US/EG Bulletin 2007. |
| 52. | Luhers et al., 1987, "Plant regeneration in vitro from embryogenic cultures of spring- and winter-type barley (Hordeum vulgare L.) varieties," Theor. Appl. Genet., 75:16-25. |
| 53. | Murakami et al., 1986, "The bialaphos biosynthetic genes of Streptomyces hygroscopicus: Molecular cloning and characterization of the gene cluster," Mol. Gen. Genet., 205:42-50. |
| 54. | Salmenkallio-Marttila et al., 1995, "Transgenic barley (Hordeum vulgare L.) by |

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DATE CONSIDERED:

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| | | Filing Date April 18, 2000 | Group Art Unit 1638 |
| | | Mailing Date December 3, 2003 | |
| | | electroporation of protoplasts," Plant Cell Rep., 15:301-304. | |
| | 55. | Thompson et al., 1987, "Characterization of the herbicide-resistance gene bar from <i>Streptomyces hygroscopicus</i> ," EMBO J., 6:2519-2523. | |
| | 56. | Wan et al., 1994, "Generation of Large Numbers of Independently Transformed Fertile Barley Plants," Plant Physiol. 104:37-48. | |
| | 57. | Wan et al., 1994, "Biolistic Transformation of Microspore-Derived and Immature Zygotic Embryos and Regeneration of Fertile Transgenic Barley Plants," In: Gene Transfer to Plants, eds. Potrykus and Spangenberg, Springer Verlag, pp. 139-146. | |
| | 58. | Zhang et al., 1996, "Production of Multiple Shoots from Shoot Apical Meristems of Oat (<i>Avena sativa</i> L.)," J. Plant Physiol, 148:667-671. | |
| | 59. | Zhong et al., 1991, "Plant regeneration via somatic embryogenesis in creeping bentgrass (<i>Agrostis palustris</i> Huds.)," Plant Cell Rep., 10:453-456. | |
| | 60. | Zhong et al., 1992, "In-vitro morphogenesis of corn (<i>Zea mays</i> L.)," Planta, 187:483-489. | |
| | | | |
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